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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,517	11/15/2001	Masayuki Sakata	Q67254	7275

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05/13/2005

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EXAMINER

CHUNG, JI YONG DAVID

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,517

Applicant(s)

SAKATA, MASAYUKI

Examiner

Ji-Yong D. Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/11/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-10 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10 and 12-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION
RESPONSE TO AMENDMENT

Response to Remarks

1. The arguments filed by the applicant' representative on April 11, 2005 have been considered, but they are not deemed fully persuasive. The following is a brief explanation in response to the arguments.

The first set of arguments, which the applicant sets forth, is that AAAL device in the instant application is provided for each of the said plurality of communication networks. The applicant states that Chuah et al. (U.S. Pat. No. 6,400,722, Chuah hereinafter) would not suggest to one of ordinary skill in the art that the AAAL device would be provided only for particular relationship among the IWF's.

The Examiner respectfully disagrees for three reasons. Firstly, Chuah states that the invention applies to "private intranets and internet service providers," implying more than one networks. Secondly, Chuah shows Fig. 37 and 38 two possible networks. Each network shows at least one serving IWF. Note that each serving IWF comprises the accounting server (see lines 7-9, column 30). Thirdly, the alleged arrangement of IWF according to the applicant would not operate properly. For each mobile connection in different networks, there must be at least one serving IWF and to communicate with home IWF.

Applicant's second set of arguments state that (1) Chuah's generic description would not suggest Voit et al (U.S. Pat. No. 6,157,636, Voit hereinafter), because Voit is not directed to AAAL devices and only to telephone call routine; and (2) the individual one-to-one connection among networks teaches away from identifying a lower-charge communication network.

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The Examiner respectfully disagrees for the following reasons: (1) Chuah's suggestion for "hooks" is not limited to systems that are directed to AAAL devices. It is directed to any systems that use network support for "enhanced services" (lines 23-26, column 2), such as quality of service based accounting. Note that Voit's system utilizes AAA services (see lines 44-65, column 6, Voit) and could replace its own AAA functions with those of Chuah's. (2) one-to-one connection does not teach away from identifying a lower-charge communication network. While it is true that Chuah's system is one-to-one connection, it is also true that *all* charges for QoS on end-to-end systems are computed based one-on-one connection, for the following simple reason: unless the endpoints are known, one cannot know a priori what networks will be used. The computation of lower-charges in Voit's system is facilitated by the use of AAA services, which Chuah provides.

Note that Voit addresses the issue of lower cost network (see lines 16-20, column 5, Voit).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. **Claims 1-4 and 8-11** are rejected under 35 U.S.C. 102(e)(2) as being anticipated by Chuah et al (U.S. Pat. No. 6,409,722, Chuah hereafter).

With respect to **claim 1**, Chuah *discloses communication system which a mobile terminal can be connected to* [lines 8-16, column 1] *and comprises a plurality of communication networks using different communication technologies* [lines 8-16, column 1] *each of said plurality of communication networks use the Internet Protocol to connect to the Internet* [The Internet requires IP protocol] *said communication system comprising:*

an information service network for managing accounting information about said mobile terminal and providing services [40, Fig. 2];

a Mobile IP (Internet Protocol) HA (Home Agent) device [HA in the current application is the combination of IWF1 and home registration server in Chuah. See lines 12-21, column 11 and lines 56-65, column 45. For IWF1, see Fig. 37. Also see lines 18-22, column 13. See lines 18-21, column 42 for Mobile IP and HA.] *provided in said information service network for constantly managing which said network mobile terminal exists in and delivering received data to an appropriate network over the Internet* [Fig. 37 and 38 show IWF1 delivering messages and Fig. 2 shows the connection to the Internet] and,

an FA (Foreign Agent) device provided in each of said plurality of communication networks for sending a position registration request from said mobile terminal to said HA device [FA in the current application is FA and the foreign registration server in Chuah. See lines 12-21, column 11 and lines 56-65, column 45] *and transferring data delivered from said HA device over the Internet to said mobile terminal when said mobile terminal is under a coverage of said*

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FA device [See lines 44-49, column 9 for FA's role in delivering data from HA. See lines 12-26, column 10 for "coverage"];

an AAAL (Authentication, Authorization and Accounting Local) device provided in each of said plurality of communication networks for sending charge information about the network in which said AAAL device is provided over the Internet [AAAL in Chuah is the accounting server in the serving IWF's MSC (see lines 7-9, column 30)] and

an AAAH (Authentication, Authorization and Accounting Home) device provided in said information service network for managing accounting information about said mobile terminal according [AAAH in accounting server in the home IWF (see lines 9-10, column 30)] *to said charge information sent from said AAAL device over the Internet.*

wherein the position registration request and a reply corresponding to said position registration request communicated between said HA device and said FA device are used to flexibly enable communications between said plurality of communication networks and the continuation of the communications across said plurality of communication networks [This limitation indicates HA and FA are used in various networks. Chuah shows this in Figs. 1-2].

With respect to **claim 2**, Chuah teaches that *said plurality of communication networks include two or more of a mobile communication network, public telephone network, and private network* [Fig. 1 shows public telephone network (6, PSTN) and private network (18, intranet). Note that Fig. 1 illustrates the networks in which Chuah's invention operates, see lines 25-30, column 3. Fig. 2 shows the mobile communication network. See also from line 60, column 5 to line 6, column 6].

With respect to **claim 3**, Chuah discloses *said HA device* [As noted above, HA in the current application is IWF1 and home registration server] *performs the position registration of said mobile terminal in response to said position registration request sent from said FA device* [See lines 4-11, column 8, for the function of home registration server and see lines 49-53, column 10 for the description of how a foreign registration server works with the home registration server].

Claims 8-11 cite all the corresponding limitations of claims 1-4, but in method form rather than in apparatus form. The reasons for the rejections of claims 1-4 apply to claims 8-11, and therefore, the claims 8-11 are rejected for the same reasons.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 5 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah in view of Akhtar et al (Akhtar hereafter). It would have been obvious to one skilled in the art at the time of the invention to modify the system disclosed in Chuah with features shown in Akhtar, for the reasons that are explained below.

With respect to **claim 5**, Chuah does not disclose, but Akhtar discloses that *said AAAL device determines whether said position registration should be allowed or not based on charge information added to the position registration request from said mobile terminal, said position registration request being input through said FA device*. In Akhtar, see Fig. 56A, in which LSF performs AAA function in response to MIP FA's registration request. The registration depends on the user's payment of his bills. See lines 62-64, column 32 for the description.

The motivation for combining Chuah and Akhtar's inventions is suggested by Akhta. Akhtar's discussion on billing is within the context of systems that have FA and AAA, like the one disclosed by Chuah. See lines 57-64, column 32 for LSF ("AAAL"), see Fig. 11 for FA (LSF), AAAL (AAA in Visiting network), AAAH (AAA in Home Network), and HA (NSF).

Claim 12 lists all the corresponding limitations of claim 5, but in method form rather than in apparatus form. The reasons for the rejections of claim 5 apply to claims 12, and therefore, the claim 12 is rejected for the same reasons.

6. **Claims 6 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah and Akhtar as applied to claims 5 and 12 above, and further in view of Voit et al (Voit hereafter). It would have been obvious to one skilled in the art at the time of the invention to modify the Chuah and Akhtar combination with features shown in Voit, for the reasons that are explained below.

With respect to **claim 6**, Chuah and Akhtar do not disclose and Voit discloses that *said AAAL device automatically identifies a lower-charge communication network based on said charge information to determine whether said position registration should be allowed or not.*

V/IP station (PC, Fig. 12 in Voit) performs local computation (“accounting”) in order to obtain the least expensive pathway (lines 14-27, column 5) based on information from C2 and C3, which supply information on authentication and authorization (See from line 6, column 14 to line 28, column 15). See from line 39, column 9 to line 62, column 10 for part description of PC user to C3.

The motivation for applying Chuah and Akhtar’s combination to Voit’s V/IP is suggested in Chuah’s disclosure, lines 5-32, column 2, in which Chuah discusses how Chuah’s invention provides hooks (or infrastructure) for the communication service such as V/IP (voice over the Internet).

Claim 13 lists all the corresponding limitations of claim 6, but in method form rather than in apparatus form. The reasons for the rejections of claim 6 apply to claims 13, and therefore, the claim 13 is rejected for the same reasons.

7. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah in view of Amos. It would have been obvious to one skilled in the art at the time of the invention to apply Chuah’s communication infrastructure for Amos’s AIMTM for the reasons that follow.

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With respect to **claim 7**, Chuah does not disclose and Amos teaches a simple cash dispenser that operates over the Internet and wireless network. See lines 31-35, column 1, and Fig. 2 in Amos.

The motivation for applying Chuah to Amos is suggested in Chuah's disclosure, lines 27-32, column 2, in which Chuah discusses how Chuah's invention provides hooks (or infrastructure) for various communication services, including ones that use the Internet. Amos's cash dispenser (H in Fig. 1) operates over the Internet. See Fig. 2.

Claim 14 lists all the corresponding limitations of claim 7, but in method form rather than in apparatus form. The reasons for the rejections of claim 7 apply to claims 14, and therefore, the claim 14 is rejected for the same reasons.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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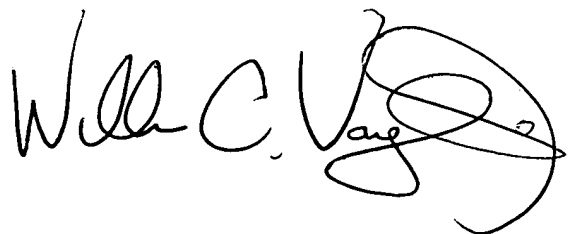
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji-Yong D. Chung whose telephone number is (571) 272-7988. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ji-Yong D. Chung
Patent Examiner
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A handwritten signature in black ink, appearing to read 'William C. Vaughn, Jr.', with a large, stylized flourish at the end.

WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER

gpc